



Center for Health Statistics



Suicide Deaths California 1998

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DATA
SUMMARY
No. DS01-
11000

This Data
Summary is
one of a
series of
leading cause
of death
reports.

Highlights

- **Suicide was the 9th leading cause of death in California.**
- **Approximately one-half of suicide deaths involved a firearm.**
- **75 % of all suicide deaths occurred among White residents.**
- **Males account for 78% of all suicide deaths.**
- **White males had the highest age-specific and age-adjusted death rates.**
- **Year 2000 National Health Objective for suicide continues to be met by California.**

Introduction

Suicide was the 9th leading cause of death in California and the 8th leading cause in the United States in 1998.^{1,2}

Suicide is a complex behavior that has been related to multiple risk factors, which vary with age, gender, and race/ethnicity. Persons who commit suicide often suffer from depression, diagnosable mental, and/or substance abuse disorders.³

Firearms are most commonly used to commit suicide in the U.S. In 1998, fifty-seven percent (57%) of the total number of U.S. suicides were committed using a firearm. Suicide deaths by firearms were higher among males (61.6%) than females (38.4%). Of the California residents who died by suicide in 1998, approximately one-half used a firearm. Predominant methods used in suicide deaths by males and females differ in California. The largest proportion of male suicide deaths (55.9%) was by firearm while females (38.6%) used poisoning. Other methods used to commit suicide include strangulation, jumping, cutting and piercing.⁴

Due to the prevalence of suicide in this country, the U.S. Public Health Service established a health objective for *Healthy People 2000*, seeking to reduce the number of suicide deaths to an age-adjusted rate of no more than 10.5 per 100,000 people.⁵

This report contains data on California's suicide deaths for 1997 and 1998. The primary focus of this report is on 1998 data, providing analysis of crude and age-adjusted death rates for California residents by sex, age, and race/ethnicity.

¹Riedmiller K., Bindra K. *Vital Statistics of California, 1998*. Center for Health Statistics, California Department of Health Services. April 2001.

²American Association of Suicidology. *U.S.A. Suicide Summary: 1998 Official Final Data*.

³National Institute of Mental Health. Suicide. *In Harm's Way: Suicide In America*. NIH Publication No. 01-4594. 1997

⁴Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. State Injury Mortality Data. 1998 California Suicide.

⁵U.S. Department of Health and Human Services. *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. Washington, D.C.: DHHS Pub. No. (PHS) 99-1256, June 1999.

Suicide Deaths

A description of [methods](#) and a brief overview of [data limitations](#) and [qualifications](#) are provided at the end of this report.

Table 1 (page 8) shows suicide death data for California residents for 1998 by race/ethnicity, age group, and sex. Among the age groups listed, California residents age 35 to 44 had the largest number of suicide deaths (695), followed by those age 45 to 54 (557), and age 25 to 34 (535). The remaining age groups had less than 400 suicide deaths each.

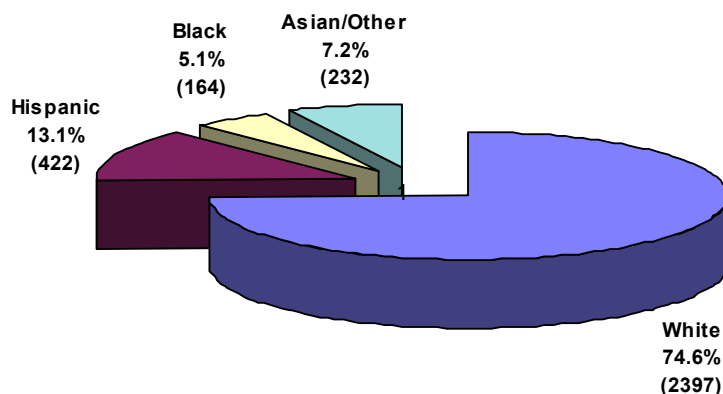
In 1998, suicide deaths were higher for males than for females. Males had 78 percent of all suicide deaths, and females had 22 percent. Among each of the major race/ethnic groups, suicide deaths were higher for males than for females. White males had 1,864 or 58 percent of the total suicide deaths in California. **Figure 1** shows Whites had the largest number of suicide deaths (2,397), followed by Hispanics (422), Asian/Other (232), and Blacks (164).

Suicide Crude Death Rates

As shown in **Table 1** (page 8), California's suicide crude death rate in 1998 was 9.6 per 100,000 population, a 7.7 percent drop from the 1997 rate of 10.4. Whites had the highest crude death rate (13.9), followed by Blacks (7.0), Asian/Other (5.9), and Hispanics (4.2). The crude rate for Whites is two times higher than the rate for Blacks and Asian/Other, and three times higher than the rate for Hispanics.

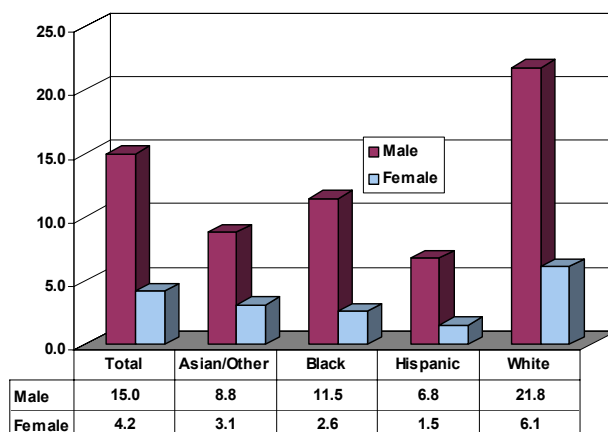
Crude death rates decreased in 1998 from the 1997 rates shown on **Table 2** (page 9) for Whites, Asian/Other, and Hispanics. The rate decreases from 1997 to 1998 were statistically significant for the White and Asian/Other race/ethnic groups.

FIGURE 1
SUICIDE DEATHS BY RACE/ETHNICITY
CALIFORNIA, 1998
(By Place of Residence)



Source: State of California, Department of Health Services. Table 1, Deaths Due to Suicide by Race/Ethnicity, Age, and Sex, California, 1998.

FIGURE 2
SUICIDE CRUDE DEATH RATES
BY RACE/ETHNICITY AND SEX
CALIFORNIA, 1998
(By Place of Residence)



Source: State of California, Department of Health Services. Table 1, Deaths Due to Suicide by Race/Ethnicity, Age, and Sex, California, 1998.

See the [Methodological Approach](#) Section later in this report for an explanation of crude and age-specific death rates.

Suicide crude death rates for Blacks increased from 1997 to 1998; however, the rate of increase was not statistically significant.

Figure 2 (page 2) shows White males had the highest suicide crude death rate at 21.8 per 100,000 population, followed by Black males (11.5). In contrast, the lowest death rates occurred among Hispanic (1.5) and Black (2.6) females. Overall, males had significantly higher crude death rates than females in their corresponding race/ethnic groups.

Suicide Age-Specific Death Rates

As shown in **Figure 3**, the age-specific death rates for 1998 among males were significantly higher than the age-specific death rates among females. The difference in the reliable age-specific death rates among males and females ranged from a low of 0.5 deaths per 100,000 population for in the 5-14 age group, up to a high of 29.3 for decedents aged 85 and older.

The age-specific death rates among males show a direct correlation with the age of decedent; as the age of the decedent increased so did the age-specific death rate. The lowest reliable male age-specific death rate (13.9 per 100,000 population) was among males age 15-24, and the highest age-specific death rate (73.3) was among males age 85 and older. The lowest reliable age-specific death rate (2.8) among females was for the 15-24 age group, and the highest age specific rate (9.6) was among females age 85 and older.

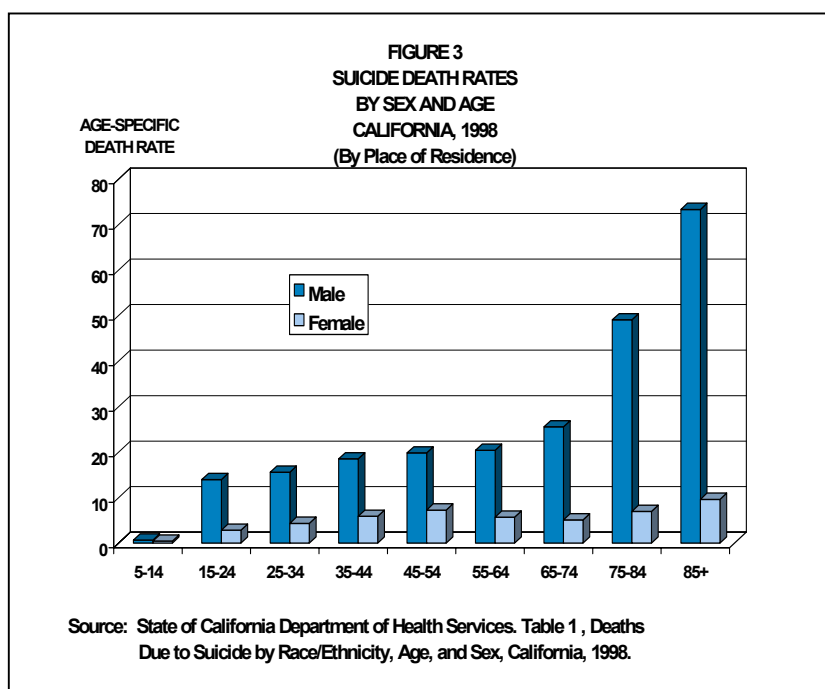


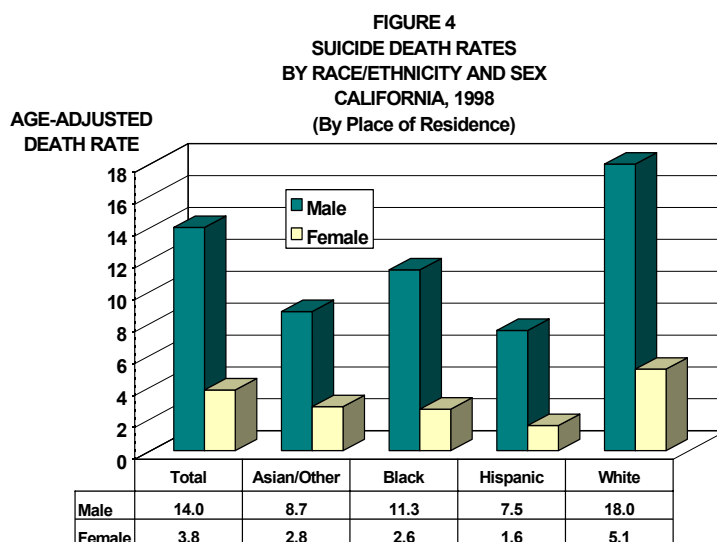
Table 1 (page 8) shows that the highest reliable age-specific death rates varied among the age groups for each of the major race/ethnic groups. Whites had the highest rate at 34.8 per 100,000 among decedents age 85 and older, followed by Blacks age 25-34 (12.7), Asian/Other age 65-74 (11.8), and Hispanics age 15-24 (7.3). Among the lowest reliable death rates for the race/ethnic groups, Hispanics had a rate of 4.6 among decedents age 55-64, followed by Asian/Other age 35-44 (5.5), Blacks age 15-24 (7.7), and Whites age 15-24 (10.5). Age-specific suicide death rates for White males of each age group were significantly higher than the rates of the other three race/ethnic groups, except for Black males age 25-34, which exceeded White males.

Suicide Age-Adjusted Death Rates

See the Vital Statistics Query System (VSQ) at our web site www.dhs.ca.gov/hisp/vsq/vsq.cfm to create your own vital statistics tables.

In 1998, the age-adjusted death rate of 8.8 per 100,000 population was less than the U.S. rate of 10.4. The Healthy People 2000 National Objective of 10.5 was first met in 1996 (9.8) and the declining trend continued in 1997 (9.6) and 1998.^{5, 6}

Figure 4 shows suicide age-adjusted death rates for 1998 among California residents by race/ethnicity and sex. During this year, the age-adjusted suicide death rate among California males was significantly greater than for females. The male rate of 14.0 was 3.7 times greater than the 3.8 rate for females.



Source: State of California, Department of Health Services. Table 1, Deaths Due to Suicide by Race/Ethnicity, Age, and Sex, California 1998.

Similar significant differences also exist between the sexes of all race/ethnic groups. The male age-adjusted death rates among Asian/Other, Blacks, Hispanics, and Whites were respectively 3.1, 4.3, 4.7, and 3.5 times greater than the age-adjusted death rates among their female counterparts. Among males, Whites had a significantly higher rate (18.0) than males of the other race/ethnic groups, followed by Black males (11.3), Asian/Other males (8.7), and Hispanic males (7.5). Similarly, White females had a significantly higher rate (5.1) than females of the other three race/ethnic groups, followed by Asian/Other females (2.8), Black females (2.6), and Hispanic females (1.6).

Suicide Death Rates for California Counties

Table 3 (page 10) shows a three-year average (1996-1998) of the number of suicide deaths, crude death rates, and age-adjusted death rates for California and each of the 58 counties.

Among the counties with reliable rates, the crude rate varied from a high of 20.8 per 100,000 population in Shasta County to a low of 7.1 in Tulare County, a difference in rate by a factor of more than 3 to 1. Shasta County had the highest reliable age-adjusted rate (19.2), and Tulare County had the lowest rate (7.1).

⁶Fujitani L. *Suicide Deaths in California, 1980-1996*. Center for Health Statistics, California Department of Health Services. 1998.

For more data, see DHS Center for Health Statistics, Home Page at www.dhs.ca.gov/org/hisp/chs/chsindex.htm.

California's age-adjusted suicide death rate for the three-year averaged period was 9.4. California as a whole and 29 counties (18 with reliable rates) met the year 2000 national health objective to reduce the age-adjusted suicide death rate to no more than 10.5 per 100,000 population.

Suicide Deaths among the Three Local City Health Jurisdictions

Table 4 shows the three-year average (1996-1998) number of suicide deaths and crude death rates for California's three local (city) health jurisdictions. Long Beach had the largest average number of suicide deaths (47.3), followed by Berkeley (12.3), and Pasadena (12.0). Of the crude death rates, Berkeley had the highest at 11.6, then Long Beach at 10.7, and Pasadena at 8.7. Long Beach had the only reliable crude death rate.

TABLE 4
SUICIDE DEATHS
AMONG THE LOCAL CITY HEALTH JURISDICTIONS
CALIFORNIA, 1996-1998
(By Place of Residence)

Local Health Jurisdiction	Number of Suicide Deaths (Average)	1997 Population	Crude Death Rate
Berkeley	12.3	106,300	11.6*
Long Beach	47.3	440,800	10.7
Pasadena	12.0	138,600	8.7*

Note: Rates are per 100,000 population, ICD-9 codes E950-E959.

* Death Rate unreliable (relative standard error is greater or equal to 23%).

Sources: State of California, Department of Finance, Report E-4 Historical City/County Population Estimates 1991-2000, with 1990 census counts, May 2000.
State of California, Department of Health Services, Death Records.

Methodological Approach

The methods used to analyze vital statistics data are important. Analyzing only the number of deaths has its disadvantages and can be misleading because the population at risk is not taken into consideration. Crude death rates show the actual rate of dying in a given population, but because of the age compositions of various populations, they do not provide a statistically valid method for comparing geographic areas or multiple reporting periods. Age-specific death rates are the number of deaths per 100,000 population in a specific age group and are used along with standard population proportions to develop a weighted average rate. This rate is referred to as an age-adjusted death rate and removes the effect of different age structures of the populations whose rates are being compared. Age-adjusted death rates, therefore, provide the preferred method for comparisons of different race/ethnic groups, sexes, and geographic areas, and for measuring death rates over time. The 1940 United States (standard million) population is used as the basis for age-adjustment in this report.

You can read more about crude and age-adjusted death rates on the National Center for Health Statistics web site at www.cdc.gov/nchs.

Data Limitations and Qualifications

This suicide death data presented in this report are based on the vital statistics records with ICD-9 codes E950-E959 as defined by the National Center for Health Statistics.^{7, 8}

The term “significant” within the text indicates either statistically significant based on the slope of a least squared line not equal to zero ($p < .05$) for regression analysis, or statistically significant based on the difference between two independent rates ($p < .05$).

As with any vital statistics data, caution needs to be exercised when analyzing small numbers, including the rates derived from them. Death rates calculated from a small number of deaths and/or population tend to be unreliable and subject to significant variation from one year to the next. To assist the reader, 95 percent confidence intervals are provided in the data tables as a tool for measuring the reliability of death rates. Rates with a relative standard error (coefficient of variation) greater than or equal to 23 percent are indicated with an asterisk (*). Also, three-year averages were used in Table 3 to increase the reliability of the rates by county.

In addition, the population data used to calculate the crude rates in Table 4 differ from the population data used to calculate the crude rates in Table 3. Consequently, caution should be exercised when comparing the crude rates among the three local health jurisdictions with the rates among the 58 California counties.

The 1940 United States population (standard million) is utilized in this report for age-adjustments because it corresponds to prior statistical reports produced on suicide by the California Department of Health Services, Center for Health Statistics and the U.S. Department of Health and Human Services, National Center for Health Statistics, and Office of Disease Prevention and Health Promotion (Healthy People 2000).

The four race/ethnic groups presented in Tables 1 and 2 are mutually exclusive. White, Black, and Asian/Other exclude Hispanic ethnicity, while Hispanic includes any race/ethnic group. In order to remain consistent with the population data obtained from the Department of Finance, the “White race/ethnic group” includes: White, Other (specified), Not Stated, and Unknown, and “Asian/Other race/ethnic group” includes: Aleut, American Indian, Asian Indian, Asian (specified/unspecified), Cambodian, Chinese, Eskimo, Filipino, Guamanian, Hawaiian, Japanese, Korean, Laotian, Other Pacific Islander, Samoan, Thai, and Vietnamese. In addition, caution should be exercised in the interpretation of mortality data by race/ethnicity. Misclassification of race/ethnicity on the death certificate may contribute to death rates that may be underestimated among Hispanics and Asian/Other.⁹

⁷National Center for Health Statistics. *Vital Statistics, Instructions for Classifying the Underlying Cause of Death*. NCHS Instruction Manual, Part 2a. Hyattsville, Maryland: Public Health Service. 1998.

⁸National Center for Health Statistics, Deaths: Final Data for 1998. *National Vital Statistics Report*, DHHS Pub. No. (PHS) 2000-1120, 0-0487, Vol.48, No. 11, p 5. July 2000.

⁹Hahn RA, Mulinare J. Teutsch SM. *Inconsistencies in Coding Race and Ethnicity between Birth and Death in U.S. Infants*. The Journal of the American Medical Association, Vol. 267, No. 2. January 1992.

[Reports from prior periods](#) are available on this subject.

For a more complete explanation of the age-adjusting methodology included in this report, see the *Healthy People 2000 Statistical Notes* publication.¹⁰ Detailed information on data quality and limitations are presented in the appendix of the annual report, *Vital Statistics of California*.¹ Formulas for death rates are provided in the *County Health Status Profiles* Report.¹¹

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¹⁰Curtin LR, Klein RJ. Direct Standardization (Age-Adjusted Death Rates), *Healthy People 2000 Statistical Notes*. National Center for Health Statistics DHHS Pub. No. (PHS) 95-1237, March 1995: No. 6-Revised.

¹¹Fujitani L. *County Health Status Profiles 2000*. Center for Health Statistics, California Department of Health Services, April 2000.

TABLE 1
DEATHS DUE TO SUICIDE BY RACE/ETHNICITY, AGE, AND SEX
CALIFORNIA, 1998
(By Place of Residence)

AGE GROUPS	DEATHS			POPULATION			RATES			95% CONFIDENCE LIMITS					
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL		MALE		FEMALE	
										LOWER	UPPER	LOWER	UPPER	LOWER	UPPER
TOTAL															
UNDER 1	0	0	0	522,034	266,390	255,644	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	2,211,332	1,131,193	1,080,139	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	29	18	11	5,284,863	2,704,999	2,579,864	0.5	0.7 *	0.4 *	0.3	0.7	0.4	1.0	0.2	0.7
15 - 24	374	315	59	4,356,208	2,258,544	2,097,664	8.6	13.9	2.8	7.7	9.5	12.4	15.5	2.1	3.5
25 - 34	535	429	106	5,208,869	2,758,217	2,450,652	10.3	15.6	4.3	9.4	11.1	14.1	17.0	3.5	5.1
35 - 44	695	532	163	5,644,380	2,876,572	2,767,808	12.3	18.5	5.9	11.4	13.2	16.9	20.1	5.0	6.8
45 - 54	557	406	151	4,131,786	2,050,795	2,080,991	13.5	19.8	7.3	12.4	14.6	17.9	21.7	6.1	8.4
55 - 64	326	252	74	2,541,885	1,236,490	1,305,395	12.8	20.4	5.7	11.4	14.2	17.9	22.9	4.4	7.0
65 - 74	280	226	54	1,948,692	885,190	1,063,502	14.4	25.5	5.1	12.7	16.1	22.2	28.9	3.7	6.4
75 - 84	297	246	51	1,236,392	501,453	734,939	24.0	49.1	6.9	21.3	26.8	42.9	55.2	5.0	8.8
85 & OLDER	119	92	27	406,376	125,502	280,874	29.3	73.3	9.6	24.0	34.5	58.3	88.3	6.0	13.2
UNKNOWN	3	3	0												
TOTAL	3,215	2,519	696	33,492,817	16,795,345	16,697,472	9.6	15.0	4.2	9.3	9.9	14.4	15.6	3.9	4.5
AGE-ADJUSTED							8.8	14.0	3.8	8.5	9.2	13.4	14.6	3.5	4.1
ASIAN/OTHER															
UNDER 1	0	0	0	59,298	30,720	28,578	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	255,226	131,589	123,637	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	4	1	3	615,588	315,572	300,016	0.6 *	0.3 *	1.0 *	0.0	1.3	0.0	0.9	0.0	2.1
15 - 24	34	29	5	565,434	290,066	275,368	6.0	10.0	1.8 *	4.0	8.0	6.4	13.6	0.2	3.4
25 - 34	52	45	7	626,348	316,425	309,923	8.3	14.2	2.3 *	6.0	10.6	10.1	18.4	0.6	3.9
35 - 44	37	26	11	670,617	323,636	346,981	5.5	8.0	3.2 *	3.7	7.3	4.9	11.1	1.3	5.0
45 - 54	40	23	17	498,901	236,177	262,724	8.0	9.7	6.5 *	5.5	10.5	5.8	13.7	3.4	9.5
55 - 64	18	13	5	286,259	135,484	150,775	6.3 *	9.6 *	3.3 *	3.4	9.2	4.4	14.8	0.4	6.2
65 - 74	24	19	5	203,383	88,240	115,143	11.8	21.5	4.3 *	7.1	16.5	11.9	31.2	0.5	8.1
75 - 84	17	11	6	109,047	46,367	62,680	15.6 *	23.7 *	9.6 *	8.2	23.0	9.7	37.7	1.9	17.2
85 & OLDER	6	3	3	32,493	13,822	18,671	18.5 *	21.7 *	16.1 *	3.7	33.2	0.0	46.3	0.0	34.3
UNKNOWN	0	0	0	0	0	0									
TOTAL	232	170	62	3,922,594	1,928,098	1,994,496	5.9	8.8	3.1	5.2	6.7	7.5	10.1	2.3	3.9
AGE-ADJUSTED							5.7	8.7	2.8	4.9	6.4	7.4	10.1	2.0	3.5
BLACK															
UNDER 1	0	0	0	35,290	18,083	17,207	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	157,434	79,976	77,458	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	1	1	0	414,292	209,767	204,525	0.2 *	0.5 *	0.0 +	0.0	0.7	0.0	1.4	-	-
15 - 24	27	25	2	352,516	184,981	167,535	7.7	13.5	1.2 *	4.8	10.5	8.2	18.8	0.0	2.8
25 - 34	49	41	8	386,096	201,122	184,974	12.7	20.4	4.3 *	9.1	16.2	14.1	26.6	1.3	7.3
35 - 44	40	34	6	392,571	191,281	201,290	10.2	17.8	3.0 *	7.0	13.3	11.8	23.7	0.6	5.4
45 - 54	32	21	11	267,602	125,822	141,780	12.0	16.7	7.8 *	7.8	16.1	9.6	23.8	3.2	12.3
55 - 64	8	5	3	163,032	76,090	86,942	4.9 *	6.6 *	3.5 *	1.5	8.3	0.8	12.3	0.0	7.4
65 - 74	3	2	1	105,180	45,362	59,818	2.9 *	4.4 *	1.7 *	0.0	6.1	0.0	10.5	0.0	4.9
75 - 84	4	4	0	58,348	21,889	36,459	6.9 *	18.3 *	0.0 +	0.1	13.6	0.4	36.2	-	-
85 & OLDER	0	0	0	17,878	5,270	12,608	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
UNKNOWN	0	0	0												
TOTAL	164	133	31	2,350,239	1,159,643	1,190,596	7.0	11.5	2.6	5.9	8.0	9.5	13.4	1.7	3.5
AGE-ADJUSTED							7.0	11.3	2.6	5.9	8.0	9.4	13.3	1.7	3.5
HISPANIC															
UNDER 1	0	0	0	247,713	125,675	122,038	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	1,024,463	522,147	502,316	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	11	9	2	2,054,172	1,048,592	1,005,580	0.5 *	0.9 *	0.2 *	0.2	0.9	0.3	1.4	0.0	0.5
15 - 24	109	92	17	1,494,249	771,494	722,755	7.3	11.9	2.4 *	5.9	8.7	9.5	14.4	1.2	3.5
25 - 34	122	97	25	1,820,094	1,021,495	798,599	6.7	9.5	3.1	5.5	7.9	7.6	11.4	1.9	4.4
35 - 44	83	72	11	1,503,414	797,133	706,281	5.5	9.0	1.6 *	4.3	6.7	6.9	11.1	0.6	2.5
45 - 54	42	35	7	848,771	429,818	418,953	4.9	8.1	1.7 *	3.5	6.4	5.4	10.8	0.4	2.9
55 - 64	21	18	3	454,852	220,075	234,777	4.6	8.2 *	1.3 *	2.6	6.6	4.4	12.0	0.0	2.7
65 - 74	14	13	1	299,470	135,955	163,515	4.7 *	9.6 *	0.6 *	2.2	7.1	4.4	14.8	0.0	1.8
75 - 84	11	9	2	140,610	57,195	83,415	7.8 *	15.7 *	2.4 *	3.2	12.4	5.5	26.0	0.0	5.7
85 & OLDER	7	5	2	51,135	17,548	33,587	13.7 *	28.5 *	6.0 *	3.5	23.8	3.5	53.5	0.0	14.2
UNKNOWN	2	2	0												
TOTAL	422	352	70	9,938,943	5,147,127	4,791,816	4.2	6.8	1.5	3.8	4.7	6.1	7.6	1.1	1.8
AGE-ADJUSTED							4.6	7.5	1.6	4.2	5.1	6.7	8.4	1.2	1.9
WHITE															
UNDER 1	0	0	0	179,733	91,912	87,821	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	774,209	397,481	376,728	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	13	7	6	2,200,811	1,131,068	1,069,743	0.6 *	0.6 *	0.6 *	0.3	0.9	0.2	1.1	0.1	1.0
15 - 24	204	169	35	1,944,009	1,012,003	932,006	10.5	16.7	3.8	9.1	11.9	14.2	19.2	2.5	5.0
25 - 34	312	246	66	2,376,331	1,219,175	1,157,156	13.1	20.2	5.7	11.7	14.6	17.7	22.7	4.3	7.1
35 - 44	535	400	135	3,077,778	1,564,522	1,513,256	17.4	25.6	8.9	15.9	18.9	23.1	28.1	7.4	10.4
45 - 54	443	327	116	2,516,512	1,258,978	1,257,534	17.6	26.0	9.2	16.0	19.2	23.2	28.8	7.5	10.9
55 - 64	279	216	63	1,637,742	804,841	832,901	17.0	26.8	7.6	15.0	19.0	23.3	30.4	5.7	9.4
65 - 74	239	192	47	1,340,659	615,633	725,026	17.8	31.2	6.5	15.6	20.1	26.8	35.6	4.6	8.3
75 - 84	265	222	43	928,387	376,002	552,385	28.5	59.0	7.8	25.1	32.0	51.3	66.8	5.5	10.1
85 & OLDER	106	84	22	304,870	88,862	216,008	34.8	94.5	10.2	28.1	41.4	74.3	114.7	5.9	14.4
UNKNOWN	1	1	0												
TOTAL	2,397	1,864	533	17,281,041	8,560,477	8,720,564	13.9	21.8	6.1	13.3	14.4	20.8	22.8	5.6	6.6
AGE-ADJUSTED							11.5	18.0	5.1	11.0	11.9	17.1	18.9	4.6	5.6

Note: Rates are per 100,000 population; ICD-9 Codes E950-E959.
White, Black, and Asian/Other exclude Hispanic ethnicity.

* Death rate unreliable, relative standard error is greater than or equal to 23%.
+ Standard error indeterminate, death rate based on no (zero) deaths.
- Confidence limit is not calculated for no (zero) deaths.

Source: State of California, Department of Finance, 1998 Population Projections by Age, Sex and Race/Ethnic Groups, May, 2000.
State of California, Department of Health Services, Death Records.

TABLE 2
DEATHS DUE TO SUICIDE BY RACE/ETHNICITY, AGE, AND SEX
CALIFORNIA, 1997
(By Place of Residence)

AGE GROUPS	DEATHS			POPULATION			RATES			95% CONFIDENCE LIMITS					
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL		MALE		FEMALE	
										LOWER	UPPER	LOWER	UPPER	LOWER	UPPER
TOTAL															
UNDER 1	0	0	0	526,869	269,593	257,276	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	2,247,883	1,150,084	1,097,799	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	25	16	9	5,126,482	2,623,174	2,503,308	0.5	0.6 *	0.4 *	0.3	0.7	0.3	0.9	0.1	0.6
15 - 24	398	338	60	4,287,123	2,231,053	2,056,070	9.3	15.1	2.9	8.4	10.2	13.5	16.8	2.2	3.7
25 - 34	603	485	118	5,295,965	2,801,042	2,494,923	11.4	17.3	4.7	10.5	12.3	15.8	18.9	3.9	5.6
35 - 44	743	569	174	5,520,289	2,806,428	2,713,861	13.5	20.3	6.4	12.5	14.4	18.6	21.9	5.5	7.4
45 - 54	595	429	166	3,972,821	1,971,051	2,001,770	15.0	21.8	8.3	13.8	16.2	19.7	23.8	7.0	9.6
55 - 64	330	241	89	2,432,927	1,183,049	1,249,878	13.6	20.4	7.1	12.1	15.0	17.8	22.9	5.6	8.6
65 - 74	325	255	70	1,949,636	882,049	1,067,587	16.7	28.9	6.6	14.9	18.5	25.4	32.5	5.0	8.1
75 - 84	274	209	65	1,205,134	486,886	718,248	22.7	42.9	9.0	20.0	25.4	37.1	48.7	6.8	11.2
85 & OLDER	129	107	22	391,566	120,167	271,399	32.9	89.0	8.1	27.3	38.6	72.2	105.9	4.7	11.5
UNKNOWN	2	2	0												
TOTAL	3,424	2,651	773	32,956,695	16,524,576	16,432,119	10.4	16.0	4.7	10.0	10.7	15.4	16.7	4.4	5.0
AGE-ADJUSTED							9.6	15.1	4.3	9.3	10.0	14.5	15.7	4.0	4.6
ASIAN/OTHER															
UNDER 1	0	0	0	60,238	31,180	29,058	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	254,370	130,902	123,468	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	1	1	0	591,663	303,064	288,599	0.2 *	0.3 *	0.0 +	0.0	0.5	0.0	1.0	-	-
15 - 24	52	39	13	548,570	281,839	266,731	9.5	13.8	4.9 *	6.9	12.1	9.5	18.2	2.2	7.5
25 - 34	58	41	17	612,830	309,144	303,686	9.5	13.3	5.6 *	7.0	11.9	9.2	17.3	2.9	8.3
35 - 44	49	39	10	651,237	313,355	337,882	7.5	12.4	3.0 *	5.4	9.6	8.5	16.4	1.1	4.8
45 - 54	38	24	14	467,272	221,503	245,769	8.1	10.8	5.7 *	5.5	10.7	6.5	15.2	2.7	8.7
55 - 64	29	21	8	270,964	127,874	143,090	10.7	16.4	5.6 *	6.8	14.6	9.4	23.4	1.7	9.5
65 - 74	28	16	12	196,266	85,253	111,013	14.3	18.8 *	10.8 *	9.0	19.6	9.6	28.0	4.7	16.9
75 - 84	17	8	9	101,593	43,544	58,049	16.7 *	18.4 *	15.5 *	8.8	24.7	5.6	31.1	5.4	25.6
85 & OLDER	10	5	5	30,556	13,077	17,479	32.7 *	38.2 *	28.6 *	12.4	53.0	4.7	71.7	3.5	53.7
UNKNOWN	1	1	0												
TOTAL	283	195	88	3,785,559	1,860,735	1,924,824	7.5	10.5	4.6	6.6	8.3	9.0	12.0	3.6	5.5
AGE-ADJUSTED							7.2	10.4	4.2	6.4	8.1	8.9	11.9	3.3	5.1
BLACK															
UNDER 1	0	0	0	36,610	18,680	17,930	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	162,632	82,532	80,100	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	4	3	1	402,151	203,623	198,528	1.0 *	1.5 *	0.5 *	0.0	2.0	0.0	3.1	0.0	1.5
15 - 24	28	24	4	349,439	184,772	164,667	8.0	13.0	2.4 *	5.0	11.0	7.8	18.2	0.0	4.8
25 - 34	37	30	7	389,632	201,917	187,715	9.5	14.9	3.7 *	6.4	12.6	9.5	20.2	1.0	6.5
35 - 44	37	28	9	382,112	185,435	196,677	9.7	15.1	4.6 *	6.6	12.8	9.5	20.7	1.6	7.6
45 - 54	14	11	3	255,815	120,369	135,446	5.5 *	9.1 *	2.2 *	2.6	8.3	3.7	14.5	0.0	4.7
55 - 64	10	8	2	157,984	73,960	84,024	6.3 *	10.8 *	2.4 *	2.4	10.3	3.3	18.3	0.0	5.7
65 - 74	12	10	2	104,036	44,736	59,300	11.5 *	22.4 *	3.4 *	5.0	18.1	8.5	36.2	0.0	8.0
75 - 84	3	3	0	57,082	21,249	35,833	5.3 *	14.1 *	0.0 +	0.0	11.2	0.0	30.1	-	-
85 & OLDER	3	3	0	17,567	5,225	12,342	17.1 *	57.4 *	0.0 +	0.0	36.4	0.0	122.4	-	-
UNKNOWN	0	0	0												
TOTAL	148	120	28	2,315,060	1,142,498	1,172,562	6.4	10.5	2.4	5.4	7.4	8.6	12.4	1.5	3.3
AGE-ADJUSTED							6.4	10.6	2.4	5.3	7.4	8.6	12.5	1.5	3.3
HISPANIC															
UNDER 1	0	0	0	249,820	127,321	122,499	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	1,028,081	524,193	503,888	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	0	0	0	1,940,843	989,960	950,883	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
15 - 24	130	113	17	1,466,796	761,756	705,040	8.9	14.8	2.4 *	7.3	10.4	12.1	17.6	1.3	3.6
25 - 34	128	108	20	1,820,565	1,021,849	798,716	7.0	10.6	2.5	5.8	8.2	8.6	12.6	1.4	3.6
35 - 44	87	73	14	1,432,765	755,866	676,899	6.1	9.7	2.1 *	4.8	7.3	7.4	11.9	1.0	3.2
45 - 54	40	34	6	795,482	401,656	393,826	5.0	8.5	1.5 *	3.5	6.6	5.6	11.3	0.3	2.7
55 - 64	22	17	5	432,489	208,812	223,677	5.1	8.1 *	2.2 *	3.0	7.2	4.3	12.0	0.3	4.2
65 - 74	19	16	3	290,567	131,786	158,781	6.5	12.1 *	1.9 *	3.6	9.5	6.2	18.1	0.0	4.0
75 - 84	10	8	2	132,632	53,301	79,331	7.5 *	15.0 *	2.5 *	2.9	12.2	4.6	25.4	0.0	6.0
85 & OLDER	1	1	0	49,737	17,451	32,286	2.0 *	5.7 *	0.0 +	0.0	6.0	0.0	17.0	-	-
UNKNOWN	0	0	0												
TOTAL	437	370	67	9,639,777	4,993,951	4,645,826	4.5	7.4	1.4	4.1	5.0	6.7	8.2	1.1	1.8
AGE-ADJUSTED							5.0	8.3	1.6	4.6	5.5	7.4	9.1	1.2	2.0
WHITE															
UNDER 1	0	0	0	180,201	92,412	87,789	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
1 - 4	0	0	0	802,800	412,457	390,343	0.0 +	0.0 +	0.0 +	-	-	-	-	-	-
5 - 14	20	12	8	2,191,825	1,126,527	1,065,298	0.9	1.1 *	0.8 *	0.5	1.3	0.5	1.7	0.2	1.3
15 - 24	188	162	26	1,922,318	1,002,686	919,632	9.8	16.2	2.8	8.4	11.2	13.7	18.6	1.7	3.9
25 - 34	380	306	74	2,472,938	1,268,132	1,204,806	15.4	24.1	6.1	13.8	16.9	21.4	26.8	4.7	7.5
35 - 44	570	429	141	3,054,175	1,551,772	1,502,403	18.7	27.6	9.4	17.1	20.2	25.0	30.3	7.8	10.9
45 - 54	503	360	143	2,454,252	1,227,523	1,226,729	20.5	29.3	11.7	18.7	22.3	26.3	32.4	9.7	13.6
55 - 64	269	195	74	1,571,490	772,403	799,087	17.1	25.2	9.3	15.1	19.2	21.7	28.8	7.2	11.4
65 - 74	266	213	53	1,358,767	620,274	738,493	19.6	34.3	7.2	17.2	21.9	29.7	39.0	5.2	9.1
75 - 84	244	190	54	913,827	368,792	545,035	26.7	51.5	9.9	23.4	30.1	44.2	58.8	7.3	12.6
85 & OLDER	115	98	17	293,706	84,414	209,292	39.2	116.1	8.1 *	32.0	46.3	93.1	139.1	4.3	12.0
UNKNOWN	1	1	0												
TOTAL	2,556	1,966	590	17,216,299	8,527,392	8,688,907	14.8	23.1	6.8	14.3	15.4	22.0	24.1	6.2	7.3
AGE-ADJUSTED							12.3	19.2	5.6	11.8	12.8	18.3	20.1	5.1	6.1

Note: Rates are per 100,000 population; ICD-9 Codes E950-E959.
 White, Black, and Asian/Other exclude Hispanic ethnicity.

* Death rate unreliable, relative standard error is greater than or equal to 23%.
 + Standard error indeterminate, death rate based on no (zero) deaths.
 - Confidence limit is not calculated for no (zero) deaths.

Source: State of California, Department of Finance, 1997 Population Projections by Age, Sex and Race/Ethnic Groups, December, 1998.
 State of California, Department of Health Services, Death Records.

TABLE 3
DEATHS DUE TO SUICIDE
CALIFORNIA COUNTIES, 1996-1998
(By Place of Residence)

COUNTY	1996-1998 DEATHS (AVERAGE)	PERCENT	1997 POPULATION	CRUDE RATE	AGE-ADJUSTED RATE	95% CONFIDENCE LIMITS	
						LOWER	UPPER
CALIFORNIA	3,349.0	100.0	32,956,695	10.2	9.4	9.1	9.8
ALAMEDA	130.7	3.9	1,398,421	9.3	8.3	6.8	9.8
ALPINE	0.3	a	1,174	28.4 *	22.0 *	0.0	96.7
AMADOR	5.3	0.2	33,472	15.9 *	12.6 *	0.4	24.8
BUTTE	34.7	1.0	198,459	17.5	14.9	9.4	20.3
CALAVERAS	8.7	0.3	37,916	22.9 *	18.4 *	4.9	31.8
COLUSA	2.3	0.1	18,530	12.6 *	8.9 *	0.0	21.7
CONTRA COSTA	89.0	2.7	896,206	9.9	8.8	6.8	10.7
DEL NORTE	3.3	0.1	28,413	11.7 *	9.1 *	0.0	19.7
EL DORADO	27.3	0.8	147,409	18.5	16.2	9.7	22.6
FRESNO	71.3	2.1	778,674	9.2	9.2	7.0	11.4
GLENN	3.0	0.1	26,856	11.2 *	12.0 *	0.0	26.2
HUMBOLDT	22.3	0.7	126,137	17.7	15.7	8.9	22.5
IMPERIAL	8.0	0.2	142,759	5.6 *	5.5 *	1.6	9.3
INYO	3.3	0.1	18,272	18.2 *	15.0 *	0.0	32.0
KERN	65.0	1.9	634,404	10.2	10.3	7.7	12.8
KINGS	9.0	0.3	117,793	7.6 *	7.7 *	2.6	12.9
LAKE	13.7	0.4	55,047	24.8 *	21.0 *	8.4	33.6
LASSEN	4.3	0.1	33,861	12.8 *	12.1 *	0.6	23.6
LOS ANGELES	814.3	24.3	9,524,613	8.5	8.2	7.7	8.8
MADERA	9.0	0.3	113,525	7.9 *	7.8 *	2.6	13.0
MARIN	32.7	1.0	243,214	13.4	10.0	6.2	13.7
MARIPOSA	3.3	0.1	15,957	20.9 *	12.9 *	0.0	27.9
MENDOCINO	18.0	0.5	85,966	20.9 *	17.7 *	9.0	26.5
MERCED	15.7	0.5	201,905	7.8 *	7.9 *	3.9	11.8
MODOC	1.3	a	10,140	13.1 *	17.2 *	0.0	47.7
MONO	1.3	a	10,531	12.7 *	9.7 *	0.0	27.1
MONTEREY	39.0	1.2	377,744	10.3	10.0	6.8	13.3
NAPA	14.7	0.4	121,239	12.1 *	9.9 *	4.3	15.4
NEVADA	13.7	0.4	88,356	15.5 *	12.4 *	4.9	19.8
ORANGE	227.3	6.8	2,705,313	8.4	7.9	6.8	9.0
PLACER	29.0	0.9	215,634	13.4	12.1	7.5	16.8
PLUMAS	3.7	0.1	20,402	18.0 *	14.6 *	0.0	30.6
RIVERSIDE	164.7	4.9	1,423,699	11.6	10.8	9.1	12.6
SACRAMENTO	142.3	4.3	1,146,825	12.4	11.3	9.4	13.3
SAN BENITO	3.0	0.1	46,121	6.5 *	6.4 *	0.0	13.9
SAN BERNARDINO	159.3	4.8	1,617,262	9.9	9.8	8.2	11.3
SAN DIEGO	328.7	9.8	2,763,401	11.9	11.1	9.9	12.4
SAN FRANCISCO	110.0	3.3	777,368	14.2	11.3	9.0	13.6
SAN JOAQUIN	55.3	1.7	542,196	10.2	9.7	7.0	12.3
SAN LUIS OBISPO	30.3	0.9	234,813	12.9	11.3	7.0	15.5
SAN MATEO	72.7	2.2	711,699	10.2	9.1	6.9	11.4
SANTA BARBARA	46.3	1.4	400,751	11.6	10.0	7.0	13.0
SANTA CLARA	134.0	4.0	1,671,414	8.0	7.5	6.2	8.8
SANTA CRUZ	27.3	0.8	247,216	11.1	10.0	6.0	14.0
SHASTA	34.0	1.0	163,351	20.8	19.2	12.3	26.0
SIERRA	1.0	a	3,406	29.4 *	24.0 *	0.0	71.2
SISKIYOU	9.0	0.3	44,186	20.4 *	17.7 *	5.2	30.2
SOLANO	41.7	1.2	378,664	11.0	10.5	7.2	13.8
SONOMA	60.7	1.8	432,771	14.0	12.6	9.2	16.0
STANISLAUS	43.7	1.3	425,407	10.3	9.7	6.7	12.7
SUTTER	11.3	0.3	76,004	14.9 *	14.1 *	5.6	22.6
TEHAMA	7.0	0.2	54,702	12.8 *	10.6 *	1.8	19.4
TRINITY	2.7	0.1	13,230	20.2 *	9.1 *	0.0	22.3
TULARE	25.3	0.8	358,337	7.1	7.1	4.3	10.0
TUOLUMNE	7.3	0.2	52,280	14.0 *	9.9 *	1.8	18.1
VENTURA	79.3	2.4	727,154	10.9	9.8	7.6	12.1
YOLO	17.7	0.5	154,850	11.4 *	10.9 *	5.7	16.1
YUBA	9.7	0.3	61,246	15.8 *	14.6 *	5.0	24.2

Note: Rates are per 100,000 population; ICD-9 Codes E950-E959. Death rate unreliable (relative standard error is greater than or equal to 23%).
a Represents a percentage of more than zero but less than 0.05.

Source: State of California, Department of Finance, Race/Ethnic Population Estimates by County with Age and Sex Detail, 1970-1998, May 2000.
State of California, Department of Health Services, Death Records.